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Role of Digital Libraries in Library and Information Science Education: A study among LIS Students of MG University, Kottayam

Prakash Abraham

Rajagiri College of Social Sciences, Kalamassery, prakashvetty@gmail.com

Sajan Kuriakose

Rajagiri College of Social Sciences, Kalamassery, sajankuriakose11@gmail.com

Althaf M. Salim

Rajagiri College of Social Sciences, Kalamassery, althaf.m.s17@gmail.com

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Role of Digital Libraries in Library and Information Science Education: A study among LIS Students of MG University, Kottayam

1. Introduction

Libraries get revolutionized due to the rapid changes in information technology. It raises new challenges and competitions in its role in society and in user's demands and expectations. Information requirements of the users are met by merging print, non-print and e-resources effectively and it is considered as the primary goal of any library (Kumar G. R., 2016). Every traditional library makes changes in its services with new technologies these days. The digital library is one of the most important concepts that change the vision of the traditional library. This term being used for the library without books, libraries having information in electronic format and providing access in the digital format. It is a library having collections in digital formats and a computer is the way to access them. It includes a collection of textual, numeric data, scanned images, graphics, audio, and video recordings that provides access to the digital collection for ease of retrieval of information to the users. Due to the rapid change in technology and the information needs of the users, the digital library becomes a necessity in all fields of research and study. Changing user habits necessitate new environment learning procedures. A redesign of spaces for information seems to be called for in the context of global change in the culture of learning (Werner, 2014). In this world of fast change, digital libraries offer many facilities to education in general and to higher education in particular (Pavani, 2007). This survey is conducted among LIS students of various colleges affiliated to Mahatma Gandhi University, Kottayam to find out the role of the digital library in their professional studies.

2. Literature Review

Radhakrishnan Commission (1948-49) perfectly mentions the role of the library. According to the commission, the library is the heart of research and educational works and the library is used for deep study and research activity (Chand, Subhash; Sharma, Hemant;, 2016). The study conducted by Apuanor et al. finds that the achievement index of a student is influenced by the learning facilities and infrastructural factors. The success of learning is connected with how the resources in the library are made use of. In higher education, the library is one of the infrastructures and facilities that students often use to study independently. It is from the library, considered as the source of learning and sourcing information, the student finds literature and reading materials that suit the lecture materials (Apuanor; Sudarmono; Yuniarsih, Riska Oktavia;, 2020).

Subhadeep Dutta in his research finds that everything is transformed in this era of technology, especially the teaching and learning processes. The information processing, storage, and retrieval techniques get drastic changes in the higher education system, including LIS education. The presence of digital objects plays a vital role in education. Thus both traditional and digital libraries have specific roles in education. Unlike traditional libraries, digital libraries provide immediate access to a wide range of sources without having physical obstacles and limitations to place and time (Dutta, 2019). A digital library plays a vital role in providing more appropriate information in less time with easy access. Digital library supports scholarly communication in the field of education, research, and development through various digital resources (Chaudhari, 2019).

The study of Theresa and Jerome on the role of digital library in law research concluded that students and practitioners had access to a piece of more modern and up-to-date information on all the laws and other legal subjects. The legal professional's works are comprised of both routine and complex task and they make use of sources outside legal literature even. The recent and up-to-date information is needed to continue a better understating of the particular area of studies. And in this regard, the digital library has a prominent role. It is not the only case related to law but can be applied to all fields of education (Theresa, Akpoghome U; Jerome, Idiegbeyan Ose, 2010).

Mukesh Chand Bharti's study on the role of digital library in the modern education system and research development argues that the digital library is very a useful platform for library users and plays a dynamic role in the field of education and research development. Digital library is used as learning-teaching tools in different academic, cultural, technical, commercial, and research education. The reason is that it can be accessed easily and wide open to a variety of sources. The research scholars use the digital library as a weapon to solve their problems (Bharti, 2019).

Dhananjay Bhagawan Sutar tries to find out the role of the digital library in LIS education. There is a need to have a virtual learning environment for LIS education. It was noticed that the video-conferencing system, M-learning, digital libraries, web-based electronic resources, internet, wireless technologies, etc. were necessary for LIS education. These tools in the new technologies, mainly digital library would make faster development and growth of LIS education. By the presence and use of the digital library, it becomes possible to give more emphasis on the teaching of new aspects inclusive of technological trends and modern topics with hand-on practice about various aspects of library services. Thus LIS education gets global access and aspect (Sutar, 2017).

The study of G.R. Kumar on the use and awareness of digital library resources concludes that the speed of availability and ease of accessibility of information make to use digital resources more frequently. According to this study, 86.36% of the respondents make use of digital library resources to collect subject information (Kumar G. R., 2016).

The research output of Hiermath on the role of digital libraries in e-learning points out that online education becomes common in schools, colleges, and training centers as the world is contracting and human aspires for more information in less time. According to him, digital libraries have proved themselves not only as effective repositories of knowledge and information, but also as an effective communication medium between peers and for scholarly discourse, and especially in the case of online learning (Hiremath, 2017).

3. Objectives

The followings are the objectives of the study.

- a. To know the awareness of LIS students about the use of digital libraries.
- b. To list out the difficulties in accessing digital libraries by LIS students.
- c. To evaluate the knowledge of LIS students on digital library Indian initiatives.
- d. To find out the role of digital library resources in LIS education.
- e. To determine LIS student's perception of the digital library services.

4. Digital library and Indian initiatives

One of the best definitions of digital library given by the National Science Foundation (NSF), USA is pointed by Seadle and Greifeneder and it is defined as store materials in electronic format and manipulate a large collection of those materials effectively (Seadle & Greifeneder, 2007). While defining the digital library, Cleveland affirms that the purposes, functions, and goals of traditional libraries are followed by the digital library. But the very focus of the digital library is on developing and organizing and helping the users to find information in digital formats alone (Cleveland, 1998). Digital library is having a well-ordered collection of information, the collection of digital objects, including text, video, and audio, and having methods for access and retrieval, and for selection, organization, and maintenance of collection (Witten & Bainbridge, 2003). Paperless library, libraries without boundaries, virtual libraries, electronic libraries, hybrid library, etc. are the other general terms used to denote a digital library. The strengths of the digital library are in the field of information retrieval and document delivery possibilities.

The digitalization processes were begun in India by 1990. It was the need of the time. Various problems were encountered at first but they were confronted as positive signs. The Indian initiatives in the digital library platforms are described in the following. Digital library of books, manuscripts, electronic theses and dissertations, institutional repositories, journals, consortium and online courseware are some of the Indian initiatives. The multiple sources are integrated into these initiatives. The Indian initiatives in the digital library of books are the digital library of India, Vigyan Prasar digital library, and NCERT online textbooks. Kalasampada: digital library resources for Indian cultural heritage, National databank on Indian art and culture, National mission for manuscripts, and Muktabodha: digital library and archive project are the other initiatives in the area of manuscripts. Shodhganga and vidyanidhi digital library are the initiatives in the area of electronic theses and dissertations. There are a number of initiatives in the digital library of journals. Indian academy of sciences, Indian national science academy, NISCAIR research journals, and Open journal access system, etc. are some of them. UGC-INFONET digital library consortium, INDEST-AICTE consortium, DAE consortium, and DRDO e-journal consortium etc. are the initiatives in the library consortium.

5. Role of digital library in Professional Education

The very purpose of any library is to support, facilitate and expand both formal and informal education. Learning is supported by the resources in libraries. Libraries form an integral part of education for they are the repositories of knowledge (Mahajan, 2005). Library services are frequently used by students, researchers, and teachers. In the higher education system, the value and functions of digital libraries in comparison to traditional libraries are getting varied due to their digital and networked nature. Digital library, a huge reservoir of information, provides the desired and needed information in very shortest time and thus plays a crucial role in higher education.

Digital library platforms distribute students a great amount of digital contents other than the materials created by university and faculty. Digital libraries are considered as the suitable tools to manage courseware as they can provide documents in all formats in a unified way, access to the contents can be assigned based on the types of users, intensify the content sharing, the realization of interactivity etc. Going beyond the course contents deepen the learning process and satisfy the incessant demands for knowledge. It needs a lot of searching, retrieving, and reading. Digital libraries hold various reference materials and these are available from anywhere and anytime and

even acclaim customization of contents. Theses and dissertations along with various project reports have specific roles in higher education as they produce original and new ideas. Normally these end up by not being published anywhere. But these would be easily and widely accessible in the digital library platforms. Digital access to the scholarly publications that are much tighter in argument and circumscribed in the treatment of topic brings out a massive change in higher education (Herubel, 2020). Various repositories are available nowadays, where the researchers can publish their reports and students can easily access them. In the area of open access, the digital library helps both students and authors. More contents are available to the student whereas authors are measured based on the quality of their work. Digital course materials allow students to engage with their materials in different ways and can facilitate active engagement in the field of study (Moro, 2018).

The most important change brought by the digital library in the field of education is that it advances information learning to the learner (Shem, 2015). The free flow of information is one of the core objectives of the digital library in academic space (Sharma & Chauhan, 2019).

6. Professional Study in Library and Information Science

LIS education is an entrance to the world of library routines and services. The day-to-day activities and services are getting changed every day due to the technological revolution. LIS education aims at forming competent and skilled professionals to manage the library systems. The practical application of these technological advancements is to be theoretically understood in the classrooms. As a whole, LIS education is not only meeting the requirements of libraries such as acquisition, processing, organizing, displaying and locating the resources, more than that the library student must be capable enough to help the users to have easy access to the knowledge and information provided by the library. LIS education on one side has to impart training on basic concepts of library science and the other side it needs to cope up with emerging skills of information handling (Chadha, 2019). The attachment of students to information has been fully refined and sifted. Like education in any other subject fields, LIS education has also to meet the modern requirements of the students. Similarly in the library platform, the nature of libraries, their functions and services, information resources and needs of users are getting changed frequently. At this juncture, the role of the digital library in LIS education increases. One of the main advantages of using the digital library in LIS education is that it makes available study materials in various formats and they can be accessed anytime and anywhere. It is an addition to what is

taught in the classroom. It is apparent that the digital library is an important area of education and a prominent source of information for LIS students and professionals (Kumar & Gupta, 2016). It is a powerful means in the educational system as new editions of study materials can easily be created and gives even chances to build a personal library.

7. Methodology

The survey method is used for this study. A structured questionnaire was prepared based on the objectives of the study and circulated among LIS students of various colleges affiliated to Mahatma Gandhi University, Kottayam. A total of 100 questionnaires were distributed and 82 of them had responded. The overall response rate for this study was 82%. The questionnaire was distributed to them through e-mail and social networking sites such as Facebook, WhatsApp, and Instagram. The survey related to this study was conducted in between 7th April 2020 and 10th May 2020.

8. Data Analysis and Interpretation

The data collected from the questionnaire is analyzed statistically. Considering the total respondents, 56.1% of them are BLISc students and the rest of them are doing MLISc. The study concludes that 98.8% of LIS students are aware of the availability of digital library platforms.

8.1 Familiarity with using the Digital Library

The familiarity of LIS students to use the digital library in their professional studies is shown in figure 1. It is evident that 35.4% of LIS students are familiar with the digital library for more than a year while 34.1% of respondents use the same for their professional studies for more than 6 months. The digital library platforms are used by 30.5% users for less than six months and they are the beginners in LIS education.

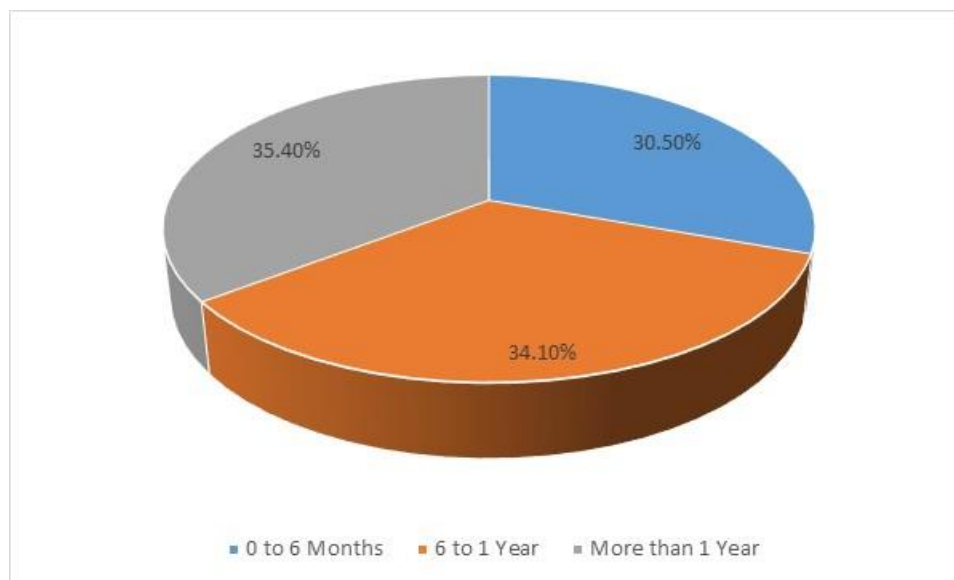


Figure 1 Familiarity with using the Digital Library

8.2 Frequency of using the Digital Library

Figure 2 shows the response rate of LIS students regarding the frequency of using digital library resources. The study specifies that 53.7% of students use it only at the time of need. It is followed by the 'weekly' use of 40.2%. On the other hand, those who use digital library platforms monthly (2.4%) and Daily (3.7%) share an equal portion.



Figure 2 Frequency of using the Digital Library

8.3 Location of accessing Digital Library platforms

Figure 3 shows the location of accessing the digital library by LIS students. The majority of them respond that they access from college (73.2%) while 17.1% access from home. Equal respondents are opted to access the digital library from the university and other places.

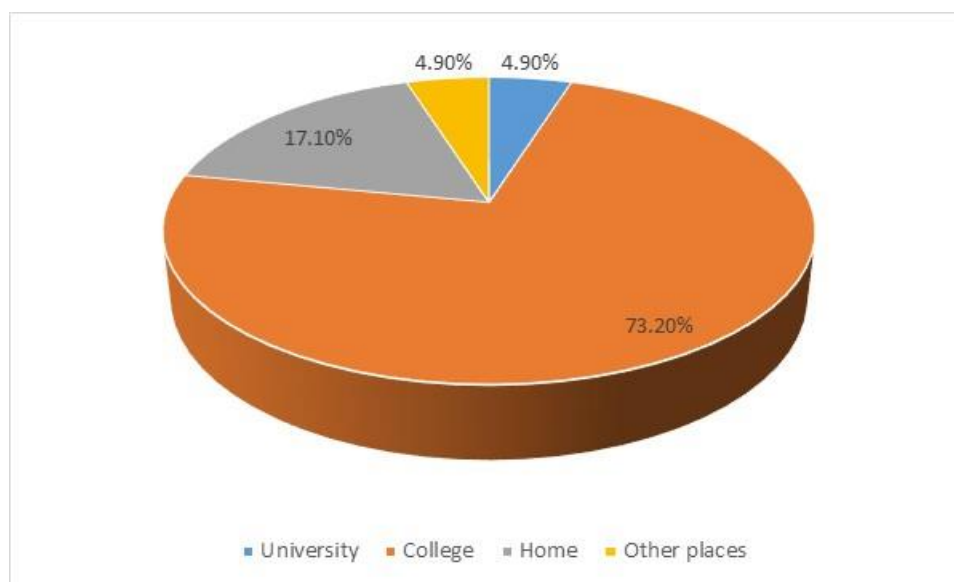


Figure 3 Location of accessing Digital Library platforms

8.4 Purpose of using Digital Library platform

Figure 4 narrates the purpose of using the digital library platform by LIS students. The digital library plays a key role in LIS education. It is indicated that 63.4% of LIS students use the digital library to prepare assignments and seminars as there is the easiness to access the latest and current information. Intending to advance knowledge in the LIS area, 24.4% make use of it. Other criteria in the use of the digital library are preparations for exams (4.9%) and other purposes (7.3%).

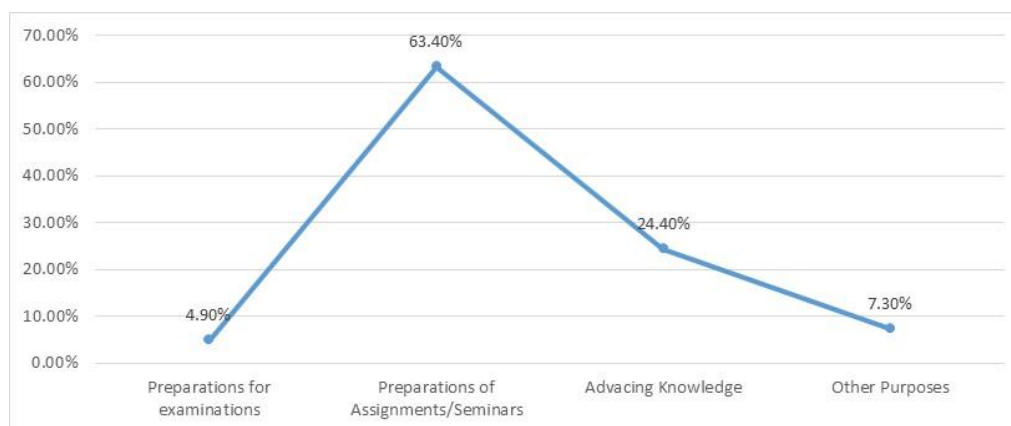


Figure 4 Purpose of using Digital Library platform

8.5 Source of learning in using the Digital library platform

The sources of learning in using the digital library platform by LIS students are shown in figure 5. It is evident that LIS students (73.2%) learn the ways to use the digital library as part of their professional studies. Personal initiative (13.4%) from the part of LIS students should be

appreciated though it is only a small amount. Friends and relatives are considered as the sources to 12.2% of the responders. Though it is not very important, 1.2% suggests not knowing the digital library platform.

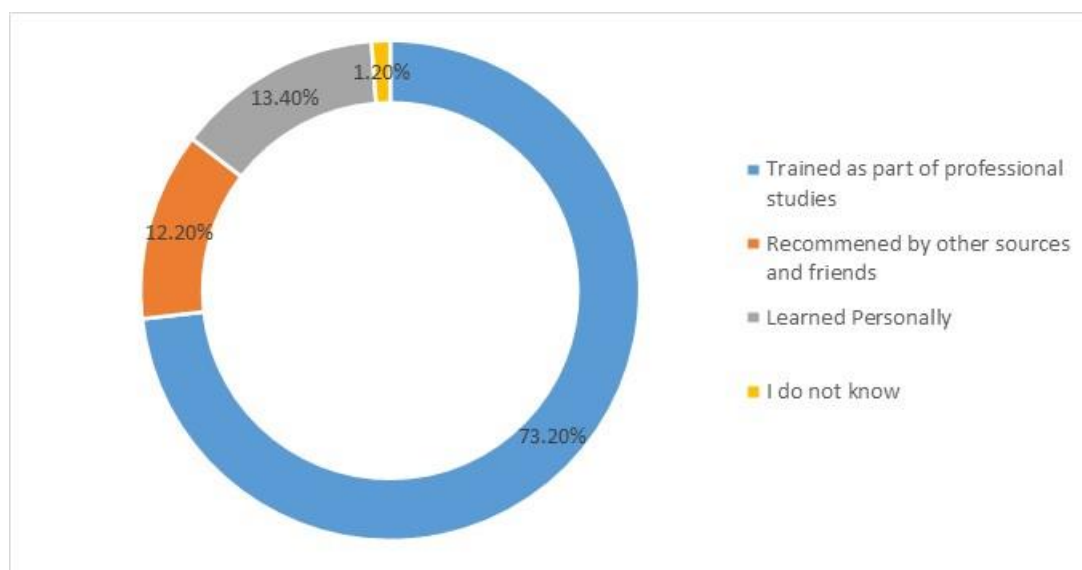


Figure 5 Source of learning to use the Digital library platform

8.6 Role of Indian and Foreign initiative

Figure 6 is about the role of Indian and foreign initiatives in LIS education. Most of LIS students (73.2%) responded that Indian initiatives in the digital library provide effective information related to their studies while 26.8% agree that they get effective information from foreign initiatives.

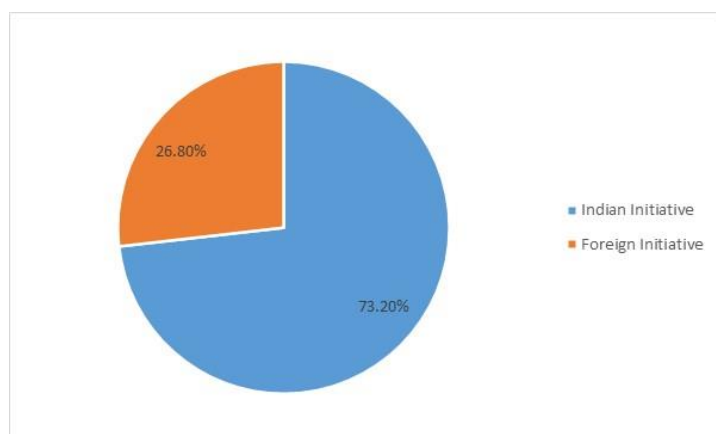


Figure 6 Role of Indian and Foreign initiative

8.7 Use of Indian Initiative in LIS education

Figure 7 is about the use of digital library Indian initiatives by LIS students in their professional studies. The digital collection of journals are used by 78% responders in their professional studies.

The digital collections of theses and dissertations and digital collections of books are respectively used by 72% and 69.5% responders. The collection of manuscripts are used by the least number of students (9.8%). Some students use other Indian initiatives in their studies.

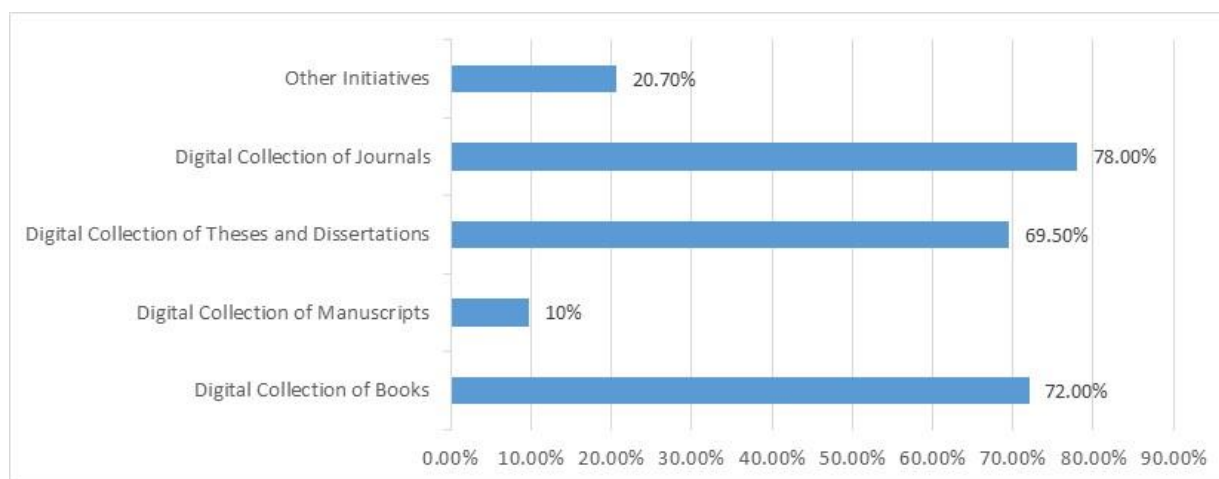


Figure 7 Use of Indian Initiative in LIS education

8.8 Conventional libraries versus digital libraries and LIS syllabus

Figure 8 gives the idea of the present syllabus of LIS that provides ways and means to access the digital library and also gives the view of the students on digital libraries comparing to conventional libraries. Majority of students (68.3%) agree that the present syllabus makes them aware of using digital libraries. And 11% of them disagree with the statement while 20.7% keep a neutral position. The majority of LIS students (78%) feel that digital libraries are more informative and effective in their professional studies. When 1.2% disagree with the argument, 20.7% of students have a neutral position in this regard.

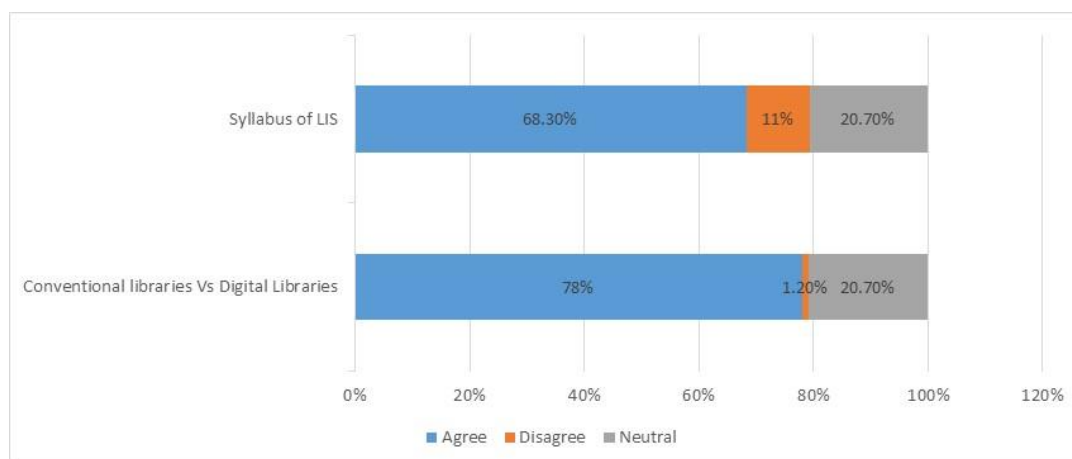


Figure 8 Conventional libraries versus Digital libraries and LIS syllabus

8.9 Devices used to access the Digital library platform

Figure 9 is related to the devices used to access the digital library. The majority of the responders (65.9%) use Laptops/Desktops to access the digital library. Mobile phones are used by 31.7% though they can be used as a gap filler, a way to kill or use a few minutes while being at any private or public place. Tablets are used rarely.

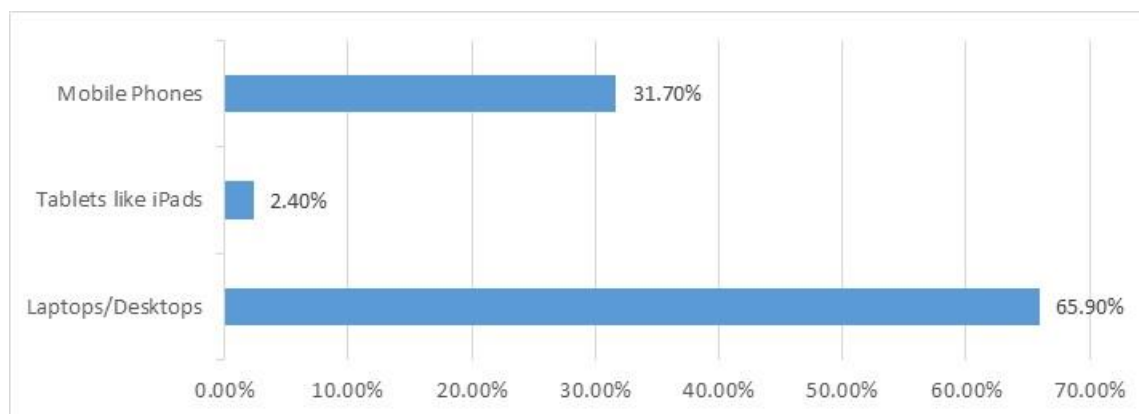


Figure 9 Devices used to access the Digital library platform

8.10 Difficulties in accessing digital library platforms

Figure 10 shows the difficulties faced by LIS students in accessing digital library sources and services. They are allowed to select only three given difficulties. Technical difficulty (54.9%) gets first place. It is followed by other difficulties (37.8%) and user authentication (36.6%).

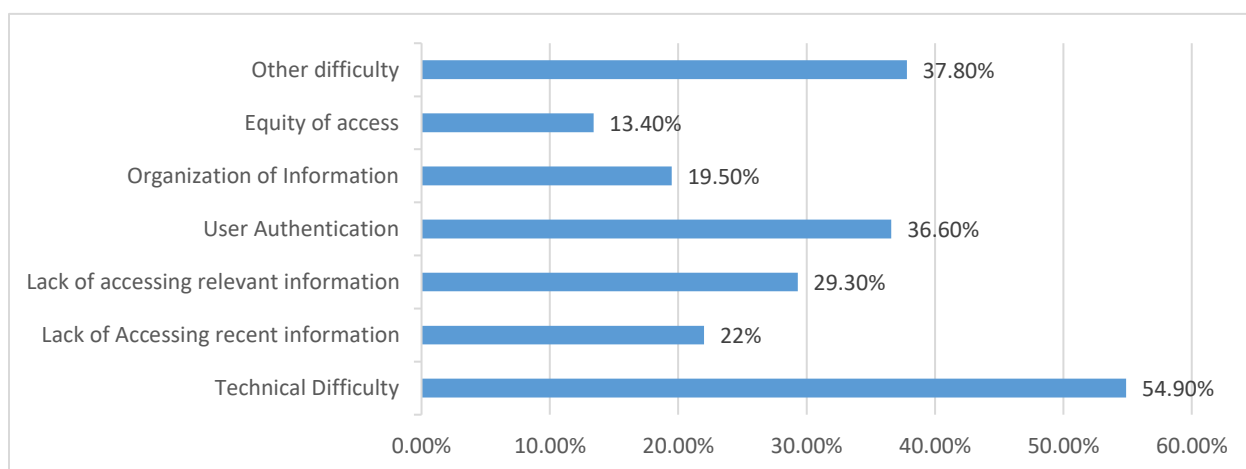


Figure 10 Difficulties in accessing digital library platforms

8.11 Role of Digital Library in increasing academic efficiency and Study materials

The library has a particular role to increase academic efficiency. Figure 11 expresses that academic efficiency of 96.3% is increased by the use of the digital library in their LIS education. Responders of 3.7% come up with the opinion that their academic efficiency is not increased. The opinion of

the responders on the availability of LIS study material in the digital libraries is that 85.4% agree that a good amount of study materials are available in the digital library. Responders of 14.6% are not satisfied with the available study materials.

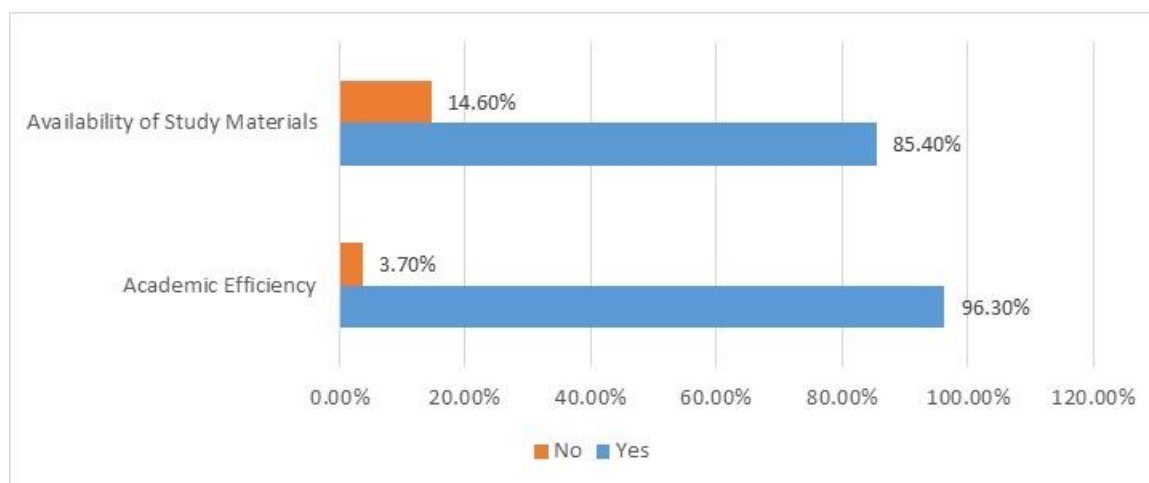


Figure 11 Role of DL in increasing academic efficiency and Study materials

9. Findings

The following observations can be made:

- Most of the LIS students (98.8%) are aware of using of digital library platform in their professional studies and 35.4% of them use it for more than a year.
- About 53.7% of LIS students access the digital library when they are in need. It is to be noted that 40.2% of them use it on a daily basis.
- The majority of them (73.2%) access the digital library collection from the college for preparations of assignments or seminars (63.5%).
- The majority (73.2%) agree that LIS education gives them training in using digital library platforms. They (68.3%) observe that the ways and means to access them are included in the present syllabus of LIS.
- Comparing to foreign initiatives, Indian initiatives (73.2%) give them effective information in the field of LIS, and digital collection of journals (78%) and books (72%) are mostly used by them.
- About 81% of LIS students agree that digital library collections and services are excellent and very good.
- Laptops and desktops are the devices mostly used by LIS students (65.9%) in accessing digital library collections.

- The majority of them suggest that technical difficulty (54.9%) and user authentication (36.6%) are the difficulties faced by while accessing digital library collections.
- Digital libraries are more informative and effective in professional studies than traditional libraries.

10. Suggestions

- Learning techniques and ways are getting reformed and redesigned due to technological changes. At this new era of vast change, the concern must be not only for the digital objects but to create a physical learning environment within the library spaces.
- To access and use the relevant information effectively, special training programmes and seminars are to be conducted at the department level.
- One of the problems related to the digital library is that it provides more of the learning materials on writing mode. Many of the students may not be comfortable with this mode. In LIS education, hands-on training is necessary.
- LIS education is dynamic in the sense that its needs and demands are ever-changing with technological developments. So it is needed to revise the LIS syllabus by including various appropriate new resources.
- LIS education should provide various chances for students to open the world of soft skills that are necessary for future library professionals.
- Learning only from the screen should not be advocated though the technology advanced far beyond. It is a kind of isolation in the field of education. There are certain and many things to be studied through interaction with peers and teachers.

11. Conclusion

We witness the extreme change in the ways and means how education is provided with the advancement of technology. Using e-resources becomes a style in all areas of education. To achieve greater efficiency in providing resources and services, libraries are designing new models. And the concept of the digital library is one of them. Digitalization in all areas has reshaped the way of communication, doing things, accessing the information, learning, etc. The same concept has intensely pierced into the education system. And it synchronizes both theoretical and practical knowledge at a time. It is a known fact in this digital era that any student at a higher level who intends to better achieve and go further in academics should have the ability to explore the digital environment. Students should have the transferable skills to make use of electronic resources

(Tella, Adeyinka; Tella, Adedeji; Ayeni, C O; Omoba, C O;, 2007). And this survey concludes that the digital library has a prominent role in imparting LIS education and the access to digital library increases due to the changes in the concept of education.

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